

Title (en)
IMAGE ACQUISITION AND PROCESSING METHODS AND APPARATUSES FOR THREE-DIMENSIONAL SCANNING, AND THREE-DIMENSIONAL SCANNING DEVICE

Title (de)
BILDERFASSUNGS- UND -VERARBEITUNGSVERFAHREN UND VORRICHTUNGEN ZUR DREIDIMENSIONALEN ABTASTUNG UND DREIDIMENSIONALE ABTASTVORRICHTUNG

Title (fr)
PROCÉDÉS ET APPAREILS D'ACQUISITION ET DE TRAITEMENT D'IMAGES POUR BALAYAGE TRIDIMENSIONNEL, ET DISPOSITIF DE BALAYAGE TRIDIMENSIONNEL

Publication
EP 3819872 A4 20210825 (EN)

Application
EP 19851007 A 20190815

Priority
• CN 201810954837 A 20180821
• CN 2019100799 W 20190815

Abstract (en)
[origin: EP3819872A1] The present invention provides three-dimensional scanning image acquisition and processing methods and apparatuses, and a three-dimensional scanning device. The three-dimensional scanning image processing method includes: synchronously acquiring a projection pattern of first wavelength light and an illumination image of second wavelength light projected on a measured object, and acquiring a color texture image projecting the measured object. Through the present invention, a problem of texture misalignment caused by the time difference and position difference between the three-dimensional reconstruction data and the color texture image in related art is solved, thereby achieving effects of high texture mapping accuracy, low production cost and less time waste.

IPC 8 full level
G01B 11/25 (2006.01); **A61C 9/00** (2006.01); **G06T 7/20** (2017.01); **G06T 7/30** (2017.01); **G06T 7/521** (2017.01)

CPC (source: CN EP US)
A61C 9/0046 (2013.01 - EP); **A61C 9/006** (2013.01 - EP); **G01B 11/25** (2013.01 - US); **G01B 11/2518** (2013.01 - EP); **G06T 7/248** (2017.01 - US); **G06T 7/33** (2017.01 - EP US); **G06T 7/40** (2013.01 - US); **G06T 7/521** (2017.01 - EP US); **G06T 15/04** (2013.01 - CN EP US); **G06T 15/50** (2013.01 - CN EP); **G06T 15/506** (2013.01 - EP US); **G06T 17/00** (2013.01 - CN); **G06T 2207/10024** (2013.01 - EP US); **G06T 2207/10028** (2013.01 - US); **G06T 2207/10152** (2013.01 - US); **G06T 2207/30036** (2013.01 - EP US); **H04N 25/71** (2023.01 - US)

Citation (search report)
• [XYI] CN 107105217 A 20170829 - SHENZHEN AOBİ ZHONGGUANG SCIENCE & TECH CO LTD
• [XYI] WO 2018073824 A1 20180426 - DENTLYTEC G P L LTD [IL]
• [IJ] CN 107633165 A 20180126 - SHENZHEN ORBBEC SCIENCE & TECH CO LTD
• [Y] US 4917487 A 19900417 - CRUICKSHANK JOHN S [GB]
• [Y] US 2016223319 A1 20160804 - MUNRO JAMES F [US], et al
• [XYI] SAKASHITA KAZUHIRO ET AL: "Capturing Textured 3D Shapes based on Infrared One-shot Grid Pattern", IPSJ TRANSACTIONS ON COMPUTER VISION AND APPLICATIONS, vol. 4, no. 0, October 2012 (2012-10-01), pages 161 - 169, XP055825552, DOI: 10.2197/ipsjtcva.4.161
• See also references of WO 2020038277A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3819872 A1 20210512; EP 3819872 A4 20210825; CN 109584352 A 20190405; CN 109584352 B 20210112; US 11887321 B2 20240130; US 2021295545 A1 20210923; WO 2020038277 A1 20200227

DOCDB simple family (application)
EP 19851007 A 20190815; CN 201810954837 A 20180821; CN 2019100799 W 20190815; US 201917265509 A 20190815